Black Eagle Water Preliminary Engineering

EXECUTIVE SUMMARY

The Black Eagle Water and Sewer District contracts with the City of Great Falls for providing their domestic water supply so the District is not responsible for any storage or treatment systems. The District owns and maintains Black Eagle's water distribution system. The water distribution system consists of a wide variety of ages of water mains, valves, fire hydrants, and services. Many blocks of the water distribution mains are original cast iron piping that experience occasional breaks due to corrosion and the brittleness of the pipe. These water main breaks lead to associated health and safety problems.

The main road (Smelter Avenue) through Black Eagle is programmed for reconstruction by MDT in 2009 or 2010. The water mains in the reconstruction area are the oldest cast iron mains on the water system. These mains have historically been brittle and broken due to nearby construction activity. These mains must be replaced before the highway reconstruction is finished to minimize future possible damage to the reconstructed roadway.

The system has several problems including:

- impending roadway reconstruction;
- failing mains due to age and pipe material;
- below standard valving and looping;
- undersized mains; and,
- galvanized steel and possibly lead service lines

As a result of these problems, Black Eagle needs to replace numerous blocks of their water system to meet modern construction standards. Black Eagle would have difficulty financing these improvements without assistance because of the low-income levels of the majority of Black Eagle citizens.

The Preliminary Engineering Report provides a detailed evaluation of the water system and proposes solutions for the various deficiencies. The report includes a description of the project area; an evaluation of the existing water system; a review of regulatory and environmental issues related to the system; development and evaluation of alternatives; a description of the recommended alternatives, with costs; and an implementation plan.

The Black Eagle Water and Sewer District will fund much of the improvements from their financial Because the citizens pay more for water and sewer service than the Montana Department of Commerce's Target Rate for communities with their income level, they are also requesting funding assistance from TSEP and RRGL to complete the necessary improvements.

The District proposes to fund the project capital costs through a combination of reserves and grant funding. A Treasure State Endowment Program grant for half of the project costs (\$365,500) and a Renewable Resource Grant of \$100,000 will be applied for during the 2006 funding application cycle. The balance of the capital costs (\$265,500) will be paid from the District's savings.

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